

REMARKS

Reconsideration and allowance of the subject application are respectfully requested.

Claims 1-11 are pending in the application.

Claim 1 has been amended to clarify the steps of the making the SOI starting material. Basis for the amendment of claim 1 can be found in the originally filed application including at page 1, line 34 to page 2, line 9, page 3, lines 5-6, and page 9, line 30. Basis for new claim 4 can be found in the originally filed application including at original claim 1 and page 1, line 34 to page 2, line 9, page 3, lines 5-6, and page 9, line 30. Basis for new claim 5 and 6 can be found at original claims 2 and 3 respectively. Basis for new claims 7-11 can be found in the originally filed application including as follows:

Claim 7 at page 2, line 2;

Claim 8 at page 2, lines 12-13;

Claim 9 at page 2, lines 13-14;

Claim 10 at page 2, line 20; and

Claim 11 at page 3, lines 5-6 and page 9, line 30.

No new matter has been added.

Applicants' counsel thanks the Examiner for the courtesy extended during the personal interview of January 24, 2005. It is believed that the claim amendments set forth above and below arguments are commensurate with the discussions during the interview.

The rejection of claims 1-3 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,786,608 (Griffith) is respectfully traversed. The claimed invention is not anticipated by Griffith for the following reasons.

As discussed during the interview, Griffith does not teach using an SOI material as claimed. An SOI material is formed by implanting a large dose of oxygen ion into a single crystal silicon wafer and annealing at a temperature of 1300°C or greater to form an SOI material comprising a top single crystal silicon layer having a major surface and a buried oxide layer.

Griffith only teaches implanting using a large dose of oxygen into a wafer.

See column 3, lines 1-24 and column 4, lines 1-55 of Griffith. These passages in Griffith clearly teach that after the wafer is implanted with a large dose of oxygen it is then implanted with silicon ion. There is no annealing of the oxygen ion implanted wafer to form an SIO material, before implanting with silicon ion. Thus, Griffith cannot anticipate the claimed invention.

Furthermore, the claimed invention eliminates silicon islands and pinholes in the buried oxide layer of an SOI material. Griffith does not teach eliminating the silicon islands and pinholes in an SOI material.

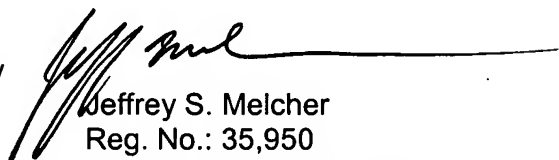
As discussed during the interview, the silicon layer 14 of Griffith will be damaged by the large oxygen ion dosage. This damaged silicon layer 14 is then implanted with silicon ion and heat treated to 1150 to 1250°C. Griffith does not teach annealing the damaged silicon layer 14 at a temperature of 1300°C or greater to form an SOI material before implanting silicon ion.

In view of the differences between Griffith and the claimed invention, withdrawal of the Section 102 rejection is respectfully requested.

In view of all of the objections and rejections of record having been addressed, it is believed that the present application is in condition for allowance and Notice to that effect is respectfully requested.

Respectfully submitted,

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